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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO.             | CONFIRMATION NO.            |
|--|-------------|-----------------------|---------------------------------|-----------------------------|
| 10/724,586   | 11/28/2003  | Christopher M. Bishop | 305414.01                       | 9877                        |
| 22971  | 7590        | 09/18/2008            |                                 |                             |
| MICROSOFT CORPORATION<br>ONE MICROSOFT WAY<br>REDMOND, WA 98052-6399 |             |                       | EXAMINER<br>SILVER, DAVID       |                             |
|  |             |                       | ART UNIT<br>2128                | PAPER NUMBER                |
|  |             |                       | NOTIFICATION DATE<br>09/18/2008 | DELIVERY MODE<br>ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

roks@microsoft.com  
ntovar@microsoft.com

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/724,586 | <b>Applicant(s)</b><br>BISHOP ET AL. |  |
|                              | <b>Examiner</b><br>DAVID SILVER      | <b>Art Unit</b><br>2128              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-12,14-19,21-31,33-44,46-55,57-65 and 67-71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-12,14-19,21-31,33-44,46-55,57-65 and 67-71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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**DETAILED ACTION**

1. Claims 1-6, 8-12, 14-19, 21-31, 33-44, 46-55, 57-65 and 67-71 are currently pending in Instant Application.
2. The Instant Application is not currently in condition for allowance.

***Response to Arguments***

***Response: Interview***

3. **Applicants state:**

- 3.1 "Applicants thank Examiner Silver for granting an in-person interview on June 12, 2008 at 3:30 PM. Examiner Silver, Supervisor Shah and Applicants' representative, MacLane Key, were in attendance. The rejections under 35 U.S.C. §§ 101, 103 and 112 were discussed. Agreement was not reached. However, Applicant's thank Examiner Silver for his suggestion of filing a continuation-in-part as a possibility for addressing these rejections." (Remarks: page 20)

4. **Examiner Response:**

- 4.1 Applicants are thanked for their time and attempt to further prosecution in a compact manner.

***Response: Claim Objection***

5. **Applicants argue:**

- 5.1 "Claim 71, as amended, recites the step of populating the input set of data with only observed data. It is respectfully submitted that Claim 71 is not in improper dependent form under 37 C.F.R. § 1.75(c), and that this objection should be withdrawn." (Remarks: page 20)

6. **Examiner Response:**

- 6.1 Applicants are thanked for amending claim 71 in view of the claim objection. The amendment is sufficient to overcome the objection. Accordingly, the objection is withdrawn.

***Response: 35 U.S.C. § 101***

7. **Applicants argue:**

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7.1 Applicants argue that claims 14 and 50 are directed to a computer product, and claims 27 and 71 are directed to a system.

7.2 Applicants argue that claim 1 recites outputting a probability density and determines a number of speakers from said density.

8. **Examiner Response:**

8.1 Regarding subsections 1 and 2 *supra*, the claims are limited by function are therefore interpreted as being method claims in view of MPEP 2106.01, "When a computer program is claimed in a process where the computer is executing the computer program's instructions, USPTO personnel should treat the claim as a process claim.". Further in regards to all of the above mentioned claims, attention is once again drawn to MPEP 2106.01, which recites: "Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See >Diamond v.< Diehr, 450 U.S. \*>175,< 185-86, 209 USPQ \*>1,< 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.")" (emphasis by Examiner). In this instance, even if the claims were being drawn to a system, they would remain nonstatutory as there are merely drawn to an abstract idea and mathematical algorithms.

8.2 Regarding subsection 2 *supra*, outputting a number without its practical application is not considered as having a practical application. The Applicants state that the numbers generated are "useful to one of ordinary skill in the art for a wide variety of specific applications" (Remarks: page 22 middle). However, such applications are not disclosed in the Specification. Further, no factual evidence to this argument statement was presented. Accordingly, the rejection is maintained.

***Response: 35 U.S.C. § 112 P2***

9. **Applicants argue:**

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9.1 "It is [] respectfully submitted that the claims, as amended, do not recite the word "tractable"." (Remarks: page 24)

**10. Examiner Response:**

10.1 Applicants are thanked for amending the claims in response to the rejection. The rejection is accordingly withdrawn as it is overcome by the amendment.

***Response: 35 U.S.C. § 103***

**11. Examiner Response:**

11.1 Applicants' arguments on page 25-26 have been fully considered and are persuasive. Therefore, Applicants' amendments are sufficient to overcome the 35 U.S.C. § 103 rejection of all independent and dependent claims. Accordingly, the rejection is withdrawn. The claims recite subject matter that is allowable when amended to overcome the 35 U.S.C. § 101 rejection.

***Claim Rejections - 35 USC § 101***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 1-6, 8-12, 14-19, 21-31, 33-44, 46-55, 57-65, and 67-71 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

"The claimed invention as a whole must >be useful and< accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at \*1373-74<, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 \*\*> (1966); In re Fisher, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); In re Ziegler, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993))." (MPEP 2106)

The claimed invention lacks a real-world practical application. Thus, it is drawn to non-statutory subject matter. See MPEP 2106 (relevant portion cited above). Applicants are claiming a method of computing, which is merely a concept without a real world value. The claimed invention of computing approximation of a posterior distribution is not applied in a practical manner which provides a real-world value, rather, it represents nothing more than an idea of performing an abstract manipulation of mathematical constructs.

attention is once again drawn to MPEP 2106.01, which recites: "Merely claiming nonfunctional

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descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See >Diamond v.< Diehr, 450 U.S. \*175, < 185-86, 209 USPQ \*1, < 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.") (emphasis by Examiner). In this instance, even if the claims were being drawn to a system, they would remain nonstatutory as there are merely drawn to an abstract idea and mathematical algorithms.

### ***Allowable Subject Matter***

13. Claim 1-6, 8-12, 14-19, 21-31, 33-44, 46-55, 57-65, and 67-71 would be allowable if rewritten or amended to overcome the rejection(s), set forth in this Office action. The reasons for indicating allowable matter are clearly made of record in the Applicants' Remarks **(dated 7/2/08)** pages 25-26 with emphasis on page 26 first two (2) full paragraphs.

### ***Support for Amendments and Newly Added Claims***

Applicants are respectfully requested, in the event of an amendment to claims or submission of new claims, that such claims and their limitations be directly mapped to the specification, which provides support for the subject matter. This will assist in expediting compact prosecution. MPEP 714.02 recites: "Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP § 2163.06. An amendment which does not comply with the provisions of 37 CFR 1.121(b), (c), (d), and (h) may be held not fully responsive. See MPEP § 714." **Amendments not pointing to specific support in the disclosure may be deemed as not complying with provisions of 37 C.F.R. 1.131(b), (c), (d), and (h) and therefore held not fully responsive.** Generic statements such as "Applicants believe no new matter has been introduced" may be deemed insufficient.

### ***Conclusion***

14. All claims are rejected.

15. The Instant Application is not currently in condition for allowance.

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**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Silver whose telephone number is (571) 272-8634. The examiner can normally be reached on Monday thru Friday, 10am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kamini S Shah/

Supervisory Patent Examiner, Art Unit 2128

/ ds / \_\_\_\_\_

David Silver, Patent Examiner

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